

IN THE CLAIMS

Please amend the claims as follows:

Claim 1-22 (Cancelled).

Claim 23 (Previously Presented): A self-cleaning plastics article produced by a process comprising:

- (i) applying a siloxane coating (a) to a plastic substrate,
- (ii) curing the siloxane coating (a) to obtain a cured siloxane coating,
- (iii) increasing the polar component of the surface energy of the cured siloxane coating to a value of at least 10 mN/m to obtain a polar coating,
- (iv) applying a coating (b) comprising photocatalytic TiO₂ particles to the polar coating, and
- (v) curing the coating (b) to obtain the self-cleaning plastics article.

Claim 24 (Previously Presented): The plastics article according to claim 23, wherein the plastic substrate comprises at least one polymer selected from the group consisting of cycloolefin copolymers, polyethylene terephthalates, polycarbonates, and poly(meth)acrylates.

Claim 25 (Previously Presented): The plastics article according to claim 24, wherein the polymer is polymethyl methacrylate.

Claim 26 (Previously Presented): The plastics article according to claim 23, wherein the plastic substrate has an impact strength of at least 10 kJ/m² to ISO 179/1.

Claim 27 (Previously Presented): The plastics article according to claim 23, wherein the plastic substrate has a thickness in the range from 1 mm to 200 mm.

Claim 28 (Previously Presented): The plastics article according to claim 23, wherein the siloxane coating comprises at least 80% by weight of alkyltrialkoxysilanes, based on the content of condensable silanes.

Claim 29 (Previously Presented): The plastics article according to claim 23, wherein the siloxane coating comprises condensable polysiloxanes whose molar mass is in the range from 500 to 1500 g/mol.

Claim 30 (Previously Presented): The plastics article according to claim 23, wherein the proportion of silicon in the siloxane coating (a) is at least 30% by weight, based on the total weight of the coating.

Claim 31 (Previously Presented): The plastics article according to claim 23, wherein the polar component of the surface energy of the siloxane coating (a) is lowered by curing to a value smaller than or equal to 6 mN/m before said increasing the polar component of the surface energy to at least 10 mN/m.

Claim 32 (Previously Presented): The plastics article according to claim 23, wherein said increasing the polar component of the surface energy of the cured siloxane coating comprises treating with alcoholic potassium hydroxide solution.

Claim 33 (Previously Presented): The plastics article according to claim 23, wherein the TiO₂ particles have a size in the range from 1 nm to 300 nm.

Claim 34 (Previously Presented): The plastics article according to claim 23, wherein the coating (b) comprises from 0.01 to 90% by weight of the TiO₂ particles, based on the total weight of the coating (b) after curing.

Claim 35 (Previously Presented): The plastics article according to claim 23, wherein the layer thickness of the siloxane coating (a) after curing is in the range from 1.5 to 30 μm .

Claim 36 (Previously Presented): The plastics article according to claim 23, wherein the layer thickness of the coating (b) after curing is in the range from 0.01 to 2 μm .

Claim 37 (Previously Presented): The plastics article according to claim 23, wherein the layer thickness of the coatings (a) and (b) after curing is in the range from 3 to 15 μm .

Claim 38 (Previously Presented): The plastics article according to claim 23, wherein the scrub resistance of the plastics article according to DIN 53778 is at least 15,000.

Claim 39 (Previously Presented): The plastics article according to claim 23, wherein the plastics article has a modulus of elasticity according to ISO 527-2 of at least 1500 MPa.

Claim 40 (Previously Presented): The plastics article according to claim 23, wherein the plastics article has a weathering resistance according to DIN 53 387 of at least 5000 hours.

Claim 41 (Previously Presented): The plastics article according to claim 23, wherein the plastics article has a transparency according to DIN 5033 of at least 70%.

Claim 42 (Previously Presented): The plastics article according to claim 23, wherein the plastics article has a yellowness index smaller than or equal to 5 after 5000 hours of UV irradiation.

Claim 43 (Previously Presented): A process for producing a self-cleaning plastics article, comprising:

- (i) applying a siloxane coating (a) to a plastic substrate,
- (ii) curing the siloxane coating (a) to obtain a cured siloxane coating,
- (iii) increasing the polar component of the surface energy of the cured siloxane coating to a value of at least 10 mN/m to obtain a polar coating,
- (iv) applying a coating (b) comprising photocatalytic TiO_2 particles to the polar coating, and
- (v) curing the coating (b) to obtain the self-cleaning plastics article.

Claim 44 (Previously Presented): The plastics article according to claim 23, wherein the polar component of the surface energy of the cured siloxane coating is increased to a value of at least 15 mN/m.

Claim 45 (Previously Presented): The plastics article according to claim 23, wherein the polar component of the surface energy of the cured siloxane coating is increased by corona treatment.

Claim 46 (Previously Presented): The plastics article according to claim 23, wherein increasing the polar component of the surface energy of the cured siloxane coating includes treating the cured siloxane coating with an alkaline solution having a pH of at least 10.

Claim 47(Previously Presented): The plastics article according to claim 23, having a wet scrub value of at least 20,000 cycles according to DIN 53778.

Claim 48 (Canceled).

DISCUSSION OF THE AMENDMENT

Claims 23-47 are active in the present application. Claim 48 is canceled.

No new matter is added.

Applicants thank Examiner Peng for indicating that Claims 23-47 are allowed. Claim 48 is canceled herein. Applicants submit that all now-pending claims are in condition for allowance and respectfully request withdrawal of the rejection and the mailing of a Notice of Allowance acknowledging the patentability of the presently pending subject matter.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Stefan U. Koschmieder, Ph.D.
Attorney of Record
Registration No. 50,238

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)